



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,986	10/31/2001	Sergei Kalashnikov	10541-449	6073
29074	7590	11/18/2003	EXAMINER	
BRINKS HOFER GILSON & LIONE P.O. BOX 10395 CHICAGO, IL 60611			REIS, TRAVIS M	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/003,986

Applicant(s)

KALASHNIKOV ET AL.

Examiner

Travis M Reis

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,10-26 and 28-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,10-26 and 28-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 103***

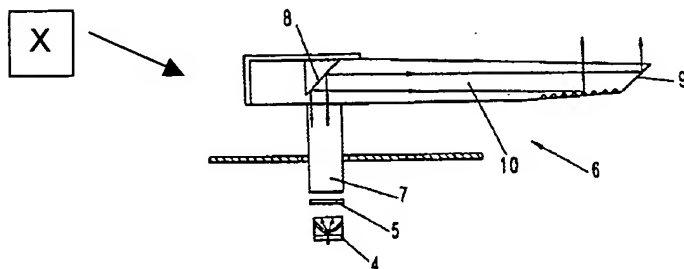
1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noll in view of Salmon et al. (U.S. Patent 5703612) & Nakamura et al. (U.S. Patent 4274358).

With reference to claims 1-7, 10, 21-25, 28, & 39, Noll discloses an instrument pointer illuminating apparatus comprising an instrument pointer (6) with a hub (X, see below) with a



top and bottom and a spindle/light guide (7) mounted to said bottom surface of said hub portion adapted to propagate light from said light sources upward into said pointer (Figure 3);

Art Unit: 2859

a light emitting diode (4) axially below said pointer (Figure 3) adapted to supply light upward (Figure 3) into said instrument pointer; said instrument pointer including a needle portion (10) and a light reflecting portion (8), presenting said internally reflective surfaces (9) adapted to reflect light received from said light sources outward into said needle portion (Figures 3).

Noll does not disclose a gage motor with a gage motor shaft extending therefrom.

Salmon discloses an illuminated pointer for an analog gauge and related method of use and manufacture with a gage motor (32) and gage motor shaft (56) (Figure 3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the spindle disclosed by Noll with the gage motor and gage motor shaft as taught by Salmon in order that the pointer is controllably movable.

Noll does not disclose a plurality of light sources.

Nakamura et al. discloses an illuminated indicator guide with a plurality of light sources (24) (col. 1 line 59). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the plurality of light sources disclosed by Nakamura et al. to the diode disclosed by Noll in order that the light coming into the needle is more visible.

Noll does not disclose said light reflecting portion being flared outward from said needle portion across said top surface of said hub to substantially cover all of said top surface of said hub, said light reflecting portion having a plurality of polynomial shaped reflective surfaces, with a notch portion positioned between said reflective surfaces, the second reflective surface being formed at an angle relative to the first reflective surface to compensate for refraction of light that travels through said notch portion.

Nakamura et al. discloses an illuminated indicator guide with a hub (26a') and light reflecting portion (to the left of A in Figure 4) flared outward from the needle portion across

Art Unit: 2859

the top surface of said hub substantially covering all of said top surface of said hub (Figure 5), said light reflecting portion having a plurality of polynomial shaped reflective surfaces (36, 38); with a notch portion (35) positioned between said reflective surfaces, the second reflective surface being formed at an angle relative to the first reflective surface to compensate for refraction of light that travels through said notch portion (Figure 4). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to replace the hub portion (X) and light reflecting portion (8) disclosed by Noll which could have light fall behind the light reflecting portion since it does not extend completely across the spindle, with the hub and light reflecting portion disclosed by Nakamura et al. in order that the light generated is better directed into the needle to increase visibility.

With reference to claims 12, 13, 30, & 31, Noll does not disclose a light collector adapted to focus light from said light sources onto a light reflector from any angular position around said gage motor shaft and reflected upward into said pointer.

Nakamura et al. discloses the indicator guide includes a light collector (12) to focus the light (L) from the light sources (24) (not pictured in embodiment disclosed in Figures 4 & 5) and a light reflector (19) around a motor shaft (20) for reflecting light upward into said pointer (Figures 4 & 5). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the light collector and light reflector disclosed by Nakamura et al. to the light sources disclosed by Noll in order that as much light as possible is directed to the needle to increase visibility.

4. Claims 14-20 & 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noll, Salmon, & Nakamura et al. as applied to claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 above, and further in view of Beeson et al. (U.S. Patent 5521725).

Noll, Salmon, & Nakamura et al. disclose all of the instant claimed invention as stated

Art Unit: 2859

above in the rejection of claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 including the reflector is conical (Nakamura et al. Figure 4) and the light beams are focused into parallel beams (Noll Figure 3).

Noll, Salmon, & Nakamura et al. do not disclose a plurality of astigmatic lenses for focusing the light produced by each light source, whereby in the horizontal plane said lenses focus the light onto an axis coaxial with said gage motor shaft, and in the vertical plane said lenses focus the light into parallel beams.

Beeson et al. discloses an illumination system employing an array of microprisms that uses an astigmatic lens (80) (col. 7 lines 37-39). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add astigmatic lenses disclosed by Beeson et al. to the light collector disclosed by Noll, Salmon, & Nakamura et al. in order that the light path will be better directly focused.

5. Claims 11 & 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noll, Salmon, & Nakamura et al. as applied to claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 above, and further in view of Masuda et al. (U.S. Patent 5320062).

Noll, Salmon, & Nakamura et al. disclose all of the instant claimed invention as stated above in the rejection of claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 but do not disclose each of said light sources include a lens for focusing the light produced by a light source.

Masuda et al. discloses a light source (5) including a lens (Figure 10) for inherently focusing the light produced by the light source (col. 6 lines 1-3). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the lens disclosed by Masuda et al. to the light source disclosed by Noll, Salmon, & Nakamura et al. in order that the light produced by the light source is focused into the pointer.

6. Claims 8 & 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noll,

Art Unit: 2859

Salmon, & Nakamura et al. as applied to claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 above, and further in view of Sugita (U.S. Patent 5878689) & Muramatsu (U.S. Patent 5291851).

Noll, Salmon, & Nakamura et al. disclose all of the instant claimed invention as stated above in the rejection of claims 1, 3-7, 10, 12, 13, 21-25, 28, 30, 31, & 39 but do not disclose the top surface of the pointer being coated with a top diffusing material adapted to diffuse light outward through the top surface, or the bottom surface being coated with a material adapted to internally reflect within said needle portion substantially all of the light which hits said bottom surface.

Sugita discloses a pointer for measuring instruments with a coating of light diffusing paint on the top surface (11) of an indicator needle (7) (Figure 7) for enhancing its visibility under low light conditions (col. 5 lines 57-60). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the light diffusion paint disclosed by Sugita to the top surface of the needle portion disclosed by Noll, Salmon, & Nakamura et al. in order to enhance its visibility under low light conditions.

Muramatsu discloses a gauge for an automobile with a reflective fluorescent coating (6) on its pointer (5) for reflecting the light (L') to a driver (Figure 7) (col. 4 lines 35-41). Therefore, it would have been obvious to one with ordinary skill in the art at the time of the invention was made to add the reflective fluorescent coating disclosed by Muramatsu to the bottom surface of the needle portion disclosed by Noll, Salmon, & Nakamura et al. in order that the light is reflected to the user.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 3-8, 10-26, & 28-39 have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 2859

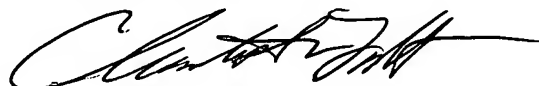
Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose number is (703) 305-4771. The examiner can normally be reached on 8--5 M--F. If unable to reach the examiner, contact the examiner's supervisor, Diego Gutierrez at (703) 308-3875. The fax for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703) 308-0956.

Travis M Reis
Examiner
Art Unit 2859



Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800

tmr
November 12, 2003

CHRISTOPHER W. FULTON
PRIMARY EXAMINER